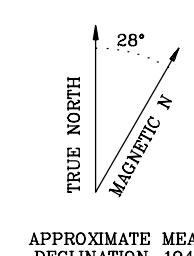
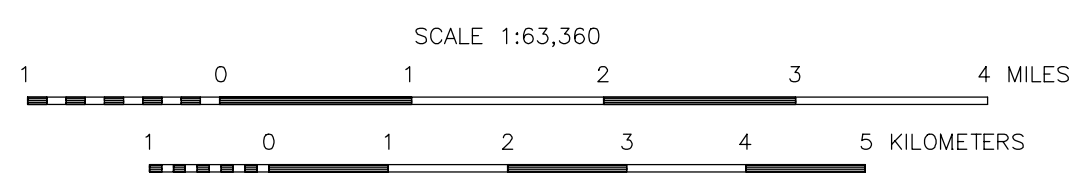


The geophysical data were acquired with a DIGHEM Electromagnetic (EM) system, a Sinterx cesium C52 magnetometer, and a Hi-Fi VLF system, and a Sinterx AS150B—Sirius helicopter. In addition, the survey was recorded data from a radar altimeter, GPS navigation system, 50/60 Hz monitors and video camera. Flights were performed at a mean terrain clearance of 200 feet along survey flight lines with a spacing of a quarter of a mile. Tie lines were flown perpendicular to the flight lines at intervals of approximately 3 miles.

A SerCEL Real-Time Differential Global Positioning System (RT-DGPS) was used for both navigation and flight path recovery. The helicopter position was derived every 0.5 seconds using real-time differential positioning to a relative accuracy of better than 10 m. Flight path positions were projected onto the Clark 1866 (UTM) spheroid, 1927 North American datum using a central meridian (CM) of 147°, a north constant of 0 and an east constant of 500,000. Positional accuracy of the presented data is better than 10 m with respect to the UTM grid.

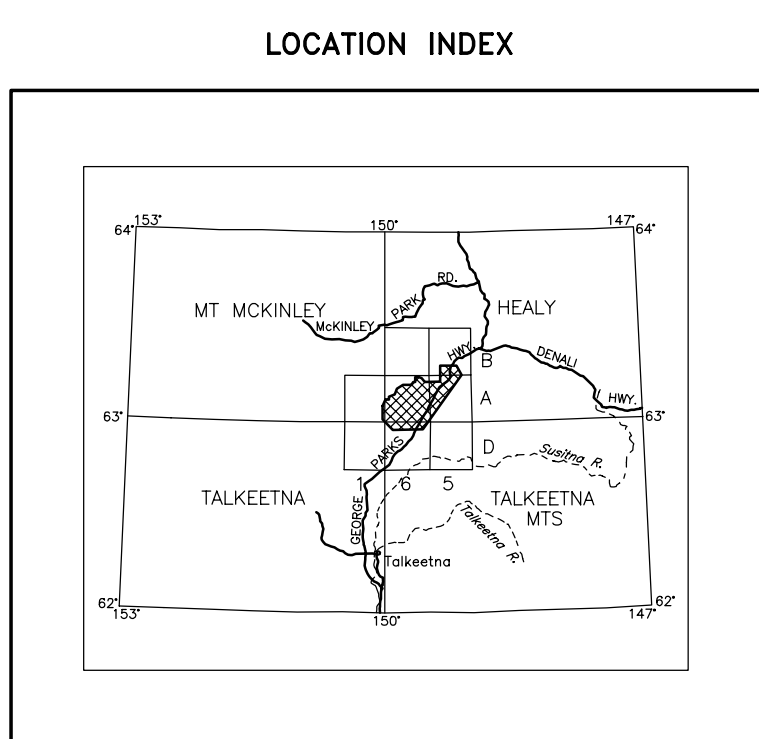
The magnetic total field contours were produced using digitally recorded data from a Scintrex cesium CS2 magnetometer, with a sampling interval of 0.1 seconds. The magnetic data were (1) corrected for diurnal variations by subtraction of the digitally recorded base station magnetic data, (2) leveled to the tie line data, and (3) interpolated onto a regular 100 m grid using a modified Akima (1970) technique. The regional variation (or IGRF gradient) from 1985, updated to October, 1996) was removed from the leveled magnetic data.

Akima, H., 1970, A new method of interpolation and smooth curve fitting based on local procedures: *Journal of the Association of Computational Machinery*, 17, 589-602.



PARTS OF HEALY, MT.McKINLEY, TALKEETNA AND TALKEETNA MTS. QUADRANGLES

by
Laurel E. Burns, Fugro Airborne Surveys Corp., and Stevens Exploration Management Corp.
2004



The map has been compiled and drawn under contract between the State of Alaska, Department of Natural Resources, Division of Geological Survey and Mining, and Stevens Exploration Management Corp. The map was produced by Fugro Airborne Surveys and supercedes the earlier full color version released by DGS in 1997. Airborne geophysical data for the area were acquired and processed in 1986 under contract between DGS and WGM, Mining and Geological Consultants, Inc. The subcontractor acquiring and processing the data was DIGHEM, a division of CGC Canada Ltd. Other products from this survey and the data used are available from the State of Alaska, 9370th Ave., 5354 College Road, Fairbanks, Alaska, 99709-3707.